

REMARKS

Claims 1-14 and 16-35 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-7, 9, 12-14, 17-25, 27, 31, and 34-35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bertin et al. (U.S. Pat. No. 6,400,681) in view of Schwartz et al. (U.S. Pat. No. 6,421,342).

Claims 11 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bertin et al. (U.S. Pat. No. 6,400,681) in view of Schwartz et al. (U.S. Pat. No. 6,421,342) and further in view of Brahmaroutu (U.S. Pub. No. 2003/0033427).

Claims 8, 10, 16, 26, 28, 29, and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bertin et al. (U.S. Pat. No. 6,400,681) in view of Schwartz et al. (U.S. Pat. No. 6,421,342) and further in view of Karp (U.S. Pat. No. 5,469,154).

These rejections are respectfully traversed.

Claim 1 recites that “the connection controller is coupled to receive the requested traffic pattern and the network topology data, compute an actual traffic pattern for the packet and communicate the actual traffic pattern to a source corresponding to the packet such that the network operates as a strictly non-interfering network.”

The Examiner acknowledges that Bertin fails to teach the above limitations, but asserts that one of ordinary skill in the art would be motivated to modify Bertin based on

the teaching of Schwartz to arrive at claim 1 including the above limitations. Applicant respectfully traverses the Examiner's assertion.

A strictly non-interfering network is defined in Applicant's Specification:

a strictly non-interfering network" is a network for which "the only queuing delays experienced by an admissible traffic pattern are attributable to the multiplexing of packets from slow links onto a faster link whose aggregate bandwidth at least equals the sum of the bandwidths of the smaller links. In a [strictly non-interfering network], competing traffic sources do not attempt to use the same network resources at the same time. The implementation of a [strictly non-interfering network] requires that resources be dedicated through the network in support of an active communication session. In order to accomplish this, non-blocking networks can be used.

Applicant's specification, Page 5 Lines 5-11. For example, a strictly non-interfering network does not transmit two competing packets to the same switching node if one of the packets needs to be queued at the switching node because the switching node is transmitting the other packet.

In contrast, Schwartz at best appears to show a switching node that aims to provide output-queuing of packets transferred by the switching node, while avoiding the quadratic increase in packet queues. Schwartz, col. 2, Ins. 24-27. In other words, the switching node of Schwartz at best appears to provide an effective queuing mechanism in the event that the network of Schwartz transmits two competing packets to that switching node (i.e., one of the packets is still queued). Schwartz, however, does not teach or suggest not transmitting two packets to the same switching node if the two packets will be competing for the same resources of that switching node (i.e., operating as a strictly non-interfering network).

The Examiner particularly relies on col. 11, Ins. 6-50 of Schwartz for the assertion that Schwartz teaches a strictly non-interfering network (p.4 of the outstanding Office action). Applicant submits that the cited portion at best appears to show how a single packet received by a switching node 11(n) is handled within that switching node by utilizing a plurality of FIFO buffers. Fig. 4 shows that the switching node has N input port modules and N output port modules. Further, N number of FIFO modules 61(p)(n), each having F number of FIFO buffers, are coupled with the N output port modules respectively. Each of the N number of FIFO modules 61(p)(n) are coupled with each of the N input port modules.

Col. 11, Ins. 4-50 of Schwartz state that

if there are "N" FIFO's in each switch module 60(p)(1) (that is, if "F" is equal to "N"), then the inter-port packet switch 22 will effectively be non-blocking, all of the input packet modules 20(n) will be able to transfer packets to any of the output port modules at any point in time. (emphasis added)

It at best appears to show that the switching node is non-blocking in the sense that each of the N input port modules is coupled to a respective one of the N number FIFO buffers at each of the output port modules. Thus, two of the input port modules do not need to compete for a FIFO buffer at an output port module. Applicant submits that this feature differs from the claimed "strictly non-interfering network." For example, in Schwartz, if two of the input port modules of the switching node each receive a packet to be transmitted through a same output port module, the switching node, by its design, would not be able to transmit the two received packets through the same output module at the same time. In other words, one of the packets must be buffered while the other packet

is being transmitted through that output port module. Thus, Schwartz cannot teach or suggest the claimed strictly non-interfering network.

The Examiner also asserts that col. 20, ln. 15 to col. 23, ln. 30 of Schwartz teach the claimed strictly non-interfering network. Applicant respectfully traverses the Examiner's assertion.

Applicant submits that portion of Schwartz at best appears to show a binary search tree arrangement for determining an output port at a switching node to transmit a received packet toward its destination. Applicant, however, can find no discussion of operating the network as the claimed strictly non-interfering network.

In view of the foregoing, Applicant submits that independent claim 1 and its dependent claims 2-8 define over the art cited by the Examiner. Likewise, independent claim 9 and its dependent claims 10-13, independent claim 14 and its dependent claims 15-18, independent claim 19 and its dependent claims 20-30, as well as independent claim 31 and its dependent claims 32-35 define over the art cited by the Examiner.

Applicant further submits that Schwartz fails to cure the deficiencies of Berlin, because Schwartz appears silent about the above limitations.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and

favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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By: /Joseph M. Lafata/
Joseph M. Lafata, Reg. No. 37,166

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

JML/PFD/evm